

It Pay\$ to Plug In: NJ's Electric Vehicle Charging Grant Program Overview and Instructions

Version 4/2020





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1.0 Background

It Pay\$ to Plug In (Program) provides grants to offset the cost to purchase, install, and maintain electric vehicle charging stations in New Jersey. This program is designed to expand New Jersey's growing network of electric vehicle infrastructure, allowing residents, businesses, organizations, and government agencies to purchase and drive electric vehicles (EVs). EVs reduce greenhouse gases and other pollutants and improve air quality.

1.1 Program Overview

The Program is a reimbursement program that reduces the cost of purchasing, installing, and maintaining Level 1, Level 2, and DC Fast Charging stations at qualifying locations that provide public, workplace, multi-unit dwelling, eMobility, and corridor charging. Public and private entities may participate in the Program.

Additional information about the Program can be found on the DriveGreenNJ website at www.drivegreen.nj.gov/plugin.html.

1.2 Program Contacts

All Program questions should be directed to the Bureau of Mobile Sources:

Bureau of Mobile Sources Mail Code 401-02E PO Box 420 Trenton, NJ 08265-0420 Phone: (609) 292-7953

Email: <u>DriveGreen@dep.nj.gov</u>

2.0 Definitions

A is Amps.

Applicant is the entity that owns or is responsible for the operation of the Charging Stations. The applicant is the recipient of the reimbursement grant.

CHAdeMO is a type of DCFC connector standard on some Asian EVs, including the Nissan Leaf.

Corridors are heavily-traveled roadways: toll roads, interstates, US routes, and NJ routes.

DC Fast Charging Station (DCFC) is a protocol for rapidly charging EV batteries by supplying power directly to the batteries in the form of direct current voltage, rather than going through a vehicle charging circuit. Typical power outputs are several hundred VDC at several hundred amps. There are two different standard connectors used for DCFC: SAE J1772 CCS (combo connector) and CHAdeMO.

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Electric Vehicle (EV) is a four-wheel light duty vehicle capable of highway speeds that is powered fully or in part by an electric motor and is rechargeable from an external connection to an off-board electrical source.

Electric Vehicle Supply Equipment (Charging Station) is the physical location a vehicle will plug in to charge. It includes all hardware and software required to connect and electric vehicle to a suitable electrical supply. A typical charging station consists of a console wired into the electrical supply and a cable and connector to plug into the electric vehicle.

eMobility is shared mobility, such as electric taxis, car sharing, and ride hailing services.

Installation Date is the date on which the charging station is affixed to its permanent location, connected to the electrical source, and ready for use (including connection to a network if applicable).

Installation Location is a parking lot, flat lot, or designated area associated with the public place, workplace, multi-unit dwelling, or corridor. Projects that feature parking lots of immense area may be separated by building or entrance (ex. Shopping malls, sports stadiums, etc).

Installer is the entity that installs the charging station. The Installer may or may not be the same as the Equipment Owner

It Pay\$ to Plug In (Program) is a program that provides incentives for the purchase and installation of electric vehicle charging stations in New Jersey. It is run by the New Jersey Department of Environmental Protection's Bureau of Mobile Sources.

kW is kilowatts.

Level 1 Charging Station (Level 1) is an EV charging protocol providing 120 VAC up to 12 A. Power is supplied via an SAE J1772 connector.

Level 2 Charging Station (Level 2) is an EV charging protocol providing 240 VAC at currents ranging from 12 A to 80 A. Power is supplied via an SAE J1772 connector. The most common Level 2 charging stations are 30 A to 40 A.

Multi-Unit Dwelling (MUD) is multi-family residences, including apartments, condominiums, and townhouses. There must be a minimum of 4 units.

NJDEP is the New Jersey Department of Environmental Protection.

Port is one charging station connection to one vehicle, capable of supplying the full rated power of the charging station. In the case of Level 2 charging stations, a port is one SAE J1772 connector. In the case of DCFC stations, one port may include both a CHAdeMO and CCS connector if only one connector can be used at a time. In all cases, if a charging station has multiple connectors but reduces the power to each connector when multiple vehicles are plugged in, then this counts as only one port.

Program Administrator is the Bureau of Mobile Sources which is responsible for receiving and reviewing applications for the Program, responding to questions from Program participants, and conducting other administrative tasks related to the Program.







SAE J1772 or **J1772** is a North American standard connector for plugging into EVs, established by the SAE International. The standard includes physical, electrical, communication, and performance requirements. The J1772 connector is used for both Level 1 and Level 2 charging.

SAE J1772 CCS or "combo connector" is the protocol standard that adds pins to the J1772 connector to allow DC fast charging. This connector is most commonly supported by North American and European EVs equipped for fast charging.

Site Owner is the owner of the site at which the charging station is installed. The Site Owner may or may not be the same as the applicant.

VAC is volts alternating current.

VDC is volts direct current.

3.0 Program Eligibility

3.1 Applicant Eligibility

To be eligible for the Program, an applicant must meet the following conditions:

- Be licensed to do business in New Jersey, including businesses, government entities, non-profit
 organizations, educational institutions, and multi-unit dwellings (apartments, condominiums,
 and townhouses). Private residential dwellings other than multi-unit dwellings are not eligible
 for grants.
- The applicant must comply with the requirements in the <u>Certification Checklist</u> and the <u>Deadlines Acknowledgement Form</u>.
- The applicant may be asked to provide access to the charging stations for site visits by program staff to verify installation.
- Level 1 and Level 2 charging station applicants may not be approved for more than \$500,000.00 in projects in a calendar year.
- Previous applications submitted are subject to the previous Terms & Conditions of the Program.
 The revised requirements in this document will only be applied to new applications submitted after April 22, 2020.

3.2 Location Eligibility

Eligible locations include:

Level 1 and Level 2 Charging Stations

O Workplaces: Charging stations for employees who drive electric vehicles. Examples include chargers for employees who drive electric vehicles to work, chargers for fleet vehicles, and visitors if desired. We recommend (but do not require) that employers with more than 50 employees use an employee survey (sample provided in "Plug-In Electric Vehicle Handbook for Workplace Charging Hosts") to determine the number of Level 1 and Level 2 charging stations that may be needed to satisfy demand.



- <u>Public Places</u>: Charging stations that are exclusively available to the general public.
 Examples include, but are not limited to, charging station in downtown areas, public parking lots and garages, hotels, transit centers, destinations and attractions, colleges and universities, retail parking areas, and public parks.
- Multi-Unit Dwellings: Charging stations for multi-family residences, including apartments, condominiums, and townhouses. There must be a minimum of 4 units.
- o <u>eMobility</u>: Charging stations that are associated with shared mobility programs, such as electric taxicabs, car-sharing programs, or ride hailing services.

DC Fast Charging Stations

- <u>Corridors</u>: Charging stations located within one (1) mile driving distance from an exit or intersection along designated major travel corridors. See definition on page 3. The site must not have any existing DC Fast Charging Stations in operation.
- eMobility: Charging stations that are included in shared mobility, car-sharing programs, or ride hailing services.

3.3 Charging Station Eligibility

The following requirements apply to Level 1, Level 2, and DC Fast charging stations:

- Each charging station must be located at a parking space that is designated for electric vehicles only and marked with appropriate signage and floor paint outlining the parking spots. A dual-port charging station must have two EV-only parking spaces.
- Parking spaces shall be adequately lit from dusk to dawn and located safe from flow of traffic.
- Bollards shall be placed to protect the charging station equipment. Any stand-alone charging station bollards should be 3 to 4-feet high with concrete footings placed to protect the electric vehicle supply equipment (EVSE) from accidental impact and to prevent damage from equipment used for snow removal.
- Must be installed in New Jersey.
- Must be kept operational and in service for a minimum of five (5) years.
- Charging stations must be ADA compliant and follow all applicable laws, ordinances, regulations and standards.
 - (https://afdc.energy.gov/files/u/publication/WPCC complyingwithADArequirements 1114.pdf)
- Must be tamper-resistant and deter vandalism.
- Must incorporate a cord management system or method to minimize the potential for cable entanglement, user injury, or connector damage.
- Charging station display screens shall be user friendly and easy to operate. Display shall be readable in direct sunlight and at night. Display must be protected from malfunctions due to condensation and normal local weather conditions.
- Must be capable of operating over an ambient temperature range of minus 22 to 122 degrees Fahrenheit with a relative humidity of up to 95%.
- Charging stations shall be certified to one of the following options:
 - Underwriters Laboratories (UL) 2594 (Standard for Electric Vehicle Supply Equipment);
 or
 - An equivalent Nationally Recognized Testing Laboratory (NRTL) program to demonstrate compliance with appropriate product safety test standards. A complete list of accredited NRTLs can be found online at: https://www.osha.gov/dts/otpca/nrtl/nrtllist.html.
 Supporting evidence must be provided.



- Networked charging stations must display real-time operational status on a smartphone application, with a thorough network-specific application or third-party aggregator.
- Public charging stations must be accessible by all drivers regardless of network memberships or subscriptions, and drivers must not be required to pay a subscription fee or otherwise obtain a membership in any network, club, association, or organization as a condition of using such electric vehicle charging station.
- For charging station sessions that require payment, real-time pricing and fee information shall be displayed on device or payment screen.

Resources for charging station hosts are available at https://www.drivegreen.nj.gov/dg-charging.html

Level 1 Charging Stations

• Applicants must install a minimum of 5 charging ports.

Each station must be capable of providing electric power at each plug at a minimum of 1.4kW continuous.

Level 2 Charging Stations

- Applicants must install a minimum of 2 charging ports per location and may apply for a maximum of 20 ports per location.
- Each port must offer a SAE J1772 compatible connector.
- Each port must be capable of providing a minimum of 7.2kW continuous.

The charging station must connect to a network by wired ethernet, Wi-Fi, or cellular connection. (See Network and Data Reporting Requirements below for more information.)

DC Fast Charging Stations

- Must be located on a corridor or within one (1) mile driving distance from an exit or intersection or part of an eMobility project.
- The charging station must be exclusively available to the general public unless it is part of an eMobility project.
- Applicants must install a minimum of 2 charging ports per location.
- Applicants may only receive reimbursement for 2 charging ports per location. Additional ports may be installed, but they will not be covered by the grant program.
- Each charging station must offer both CHAdeMO and SAE CCS charging protocol connectors and shall be considered to be one port.
- For corridor charging stations, each port must be capable of providing a minimum of 150kW continuous to each vehicle that is charging. If multiple vehicles may be charged simultaneously at the same station or location, the power available to each vehicle shall not be less than 150kW.
- The charging station must connect to a network by wired ethernet, Wi-Fi, or cellular connection.
 (See Network Requirements below for more information.)
- The charging station shall use the latest approved version of the Open Charge Point Protocol.
- Charging stations that require payment must at minimum be equipped with a credit card reader
 that allows users to pay using credit and debit cards without incurring excessive fees,
 inconvenience, or delays compared to other payment methods. Multiple point-of-sale payment
 methods are encouraged; additional payment options may include, but are not limited to, pay
 per use subscription methods, RFID or smart cards, toll-free telephone numbers, and smart
 phone applications.







- Charging stations must maintain a 95% annual uptime requirement. Should repair be necessary, service must be contacted within 24 hours and the station up and fully operational within 48 hours to ensure a 95% annual uptime guarantee.
- Charging stations must be accessible to the general public 24 hours a day and 7 days a week.
 Charging stations must provide customer support service that is available 24 hours a day, 7 days a week via a toll-free telephone number posted on or near the charging station, and that is clearly visible to the user.

3.4 Network and Data Reporting Requirements

Network must provide the option for remote management and access control.

Stations shall collect usage data for data reporting, including, but not limited to:

- Charging data such as date and time of usage (start and stop times);
- Number of charging events;
- Total energy (kWh) per charging event;
- Total dollar amount charged to the user (if applicable);
- Station status and health in real time;
- Malfunction or operating errors;
- Unique ID for identifying the EVSE;
- Other non-dynamic EVSE information such as GPS ID; and
- Percentage or length of time of station downtimes.

Usage data shall be provided to the DEP Bureau of Mobile Sources on a quarterly basis. The grant agreement will provide specific data to be submitted and the required data format to be used.

4.0 Reimbursement Amounts and Eligible Costs

To ensure reimbursement under this program, do not purchase or begin installing a charging station until NJDEP has approved this application and has finalized a grant agreement between NJDEP and the applicant.

Eligible costs include those costs necessary for, and directly connected to, the acquisition, installation, operation and maintenance of new charging stations. Eligible costs include a maintenance agreement and network subscription for up to five (5) years. Signage and painting specific to the EV parking spots are eligible installation costs. The following are not eligible costs: purchase or rental of real estate, other capital costs (e.g., construction of buildings, parking facilities, etc.) or general maintenance (i.e., maintenance other than of the charging equipment).

Upon completion of work in accordance with the eligibility criteria and grant agreement requirements, NJDEP will reimburse each applicant for a percentage of eligible costs, up to a maximum of:

- Level 1: \$750 per Level 1 charging port;
- Level 2: \$4,000 per Level 2 charging port;
- DC Fast Charger: \$200,000 per location (2 port minimum).





Location	Exclusively available to the general public?	Located on government-owned property	Located on non- government-owned property
Public place	Yes	100% up to maximum	80% up to maximum
Workplace	No	60% up to maximum	60% up to maximum
Multi-unit dwelling	No	60% up to maximum	60% up to maximum
Corridor*	Yes	100% up to maximum	80% up to maximum

^{*}corridor location as identified by the strategic mapping.

Reimbursement will not exceed payment receipts.

eMobility reimbursements will vary depending on location and availability to the public.

Reimbursement is contingent upon availability of funding.

Leasing Option:

Lease payments in accordance with the above maximum reimbursement amounts and applicable percentages are an eligible cost. Payments will be disbursed yearly for the length of a five-year lease or until maximum grant amount is reached.

5.0 Approval and Selection Process

Level 1 and Level 2 Charging Stations

Applicants will be considered on a first-come, first-served basis, and funds will be allocated to approved projects until depleted.

The NJDEP reserves the right to limit the number of approved charging ports per applicant.

DC Fast Charging Stations

Applicants will be considered after the closing of the competitive solicitation period. Corridor DCFC locations will be evaluated on the following selection criteria:

- 150kw charger
- DCFC suitability scores
- Current and projected EV registration concentrations
- Gaps in coverage along major corridors (to comply with the 25 mile EV Law requirement)
- Proximity to amenities. *

eMobility Stations

Applicants with projects in disproportionately impacted communities will receive priority for funding.

The NJDEP reserves the right to limit the number of approved charging stations per applicant.



^{*}Proximity shall be measured in driving distance.

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6.0 Procedure

Level 1 and Level 2 Charging Station Procedure

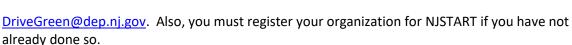
- Complete the <u>Application</u>, Level 1 and Level 2 <u>Project Information Form</u>, <u>Certification Checklist</u>, <u>Deadlines Acknowledgement Form</u>, and <u>W-9 form</u> and submit to NJDEP Bureau of Mobile Sources at <u>DriveGreen@dep.nj.gov</u>. Also, you must register your organization for <u>NJSTART</u> if you have not already done so.
- 2. NJDEP will review the information submitted and notify the applicant as to whether or not the proposed charging station(s) were approved. For those projects that qualify, NJDEP will provide and execute a grant agreement (DEP-069MG or DEP-069G) with the applicant. The applicant will be required to sign and must meet all requirements of the grant agreement and attachments. To ensure reimbursement under this program, do not purchase or begin installing a charging station until this agreement is finalized.
- 3. Installation of the charging stations must be completed within nine months of NJDEP grant execution.
- 4. After installation, the applicant must submit the following to the NJDEP Bureau of Mobile Sources at DriveGreen@dep.nj.gov:
 - a. Reimbursement Request Form
 - b. Invoices
 - c. Proof of Payment
 - d. Installed Site Photo: photo of the charging station installed so the equipment is visible at its site
 - e. Display Screen Photo: photo of the display screen to verify the charging station is operational and connected to the network if applicable.
 - f. Serial Number Photo: photo of the serial number on each charging station
- 5. The applicant must also report the new station to the Alternative Fuels Data Center for listing on their website and maps (https://afdc.energy.gov/stations/#/station/new). Chargers that are restricted to employee use only or fleet use only may be designated as "private" in the "Type of Access" field.
- 6. NJDEP will review these invoices to determine if costs are appropriate to the agreed upon project, and if so, issue a check for the approved grant amount not to exceed payment receipts. Although NJDEP will reserve funding for each application approved, reimbursement will occur only after the work has been completed in a manner that satisfies the NJDEP grant criteria and the charging station has been placed in service.

DC Fast Charging Station Procedure

1. Complete the <u>Application</u>, <u>DCFC Project Information Form</u>, <u>Certification Checklist</u>, <u>Deadlines</u> <u>Acknowledgement Form</u>, and <u>W-9 form</u> and submit to NJDEP Bureau of Mobile Sources at







- 2. The applicant must also submit evidence of site control at the time of application. Evidence of site control could be a letter of intent from the site host (for commercial entities) or a board resolution authorizing the project (for municipal entities).
- 3. Once the application period closes, NJDEP will review the information submitted and rank all submitted applications based on the ranking criteria.
- 4. NJDEP will notify the applicant as to whether or not the proposed charging station(s) were approved. For those projects that are approved, NJDEP will provide and execute a grant agreement (DEP-069G) with the applicant. The applicant will be required to sign and must meet all requirements of the grant agreement and attachments included. To ensure reimbursement under this program, do not purchase or begin installing a charging station until this agreement is finalized.
- 5. Within 3 months from grant execution, the applicant must provide proof of the following milestones:
 - Approval for new services from the utility at the power levels required, if not behind the meter
 - Detailed site design including site engineering, electrical, and signage plan
 - Fully-executed site host agreement (where the applicant is not the site host)
 - Evidence that applications for local permits and approvals have been submitted
- 6. Within 6 months from grant execution, the applicant must provide proof that all necessary approvals were obtained and physical construction has started.
- 7. Installation of the charging stations must be completed within 12 months of NJDEP grant execution with the option for a 6-month extension.
- 8. After installation, the applicant must submit the following the NJDEP Bureau of Mobile Sources at DriveGreen@dep.nj.gov:
 - Reimbursement Request Form
 - Invoices
 - Proof of Payment
 - Installed Site Photo: photo of the charging station installed so the equipment is visible at its site
 - Display Screen Photo: photo of the display screen to verify the charging station is operational and connected to the network.
 - Serial Number Photo: photo of the serial number on each charging station
- 9. The applicant must also report the new station to the Alternative Fuels Data Center for listing on their website and maps(https://afdc.energy.gov/stations/#/station/new).
- 10. NJDEP will review these invoices to determine if costs are appropriate to the agreed upon project, and if so, issue a check for the approved grant amount not to exceed payment receipts. Although NJDEP will reserve funding for each application approved, final reimbursement will occur only after the work has been completed in a manner that satisfies the NJDEP grant criteria and the charging station has been placed in service.

7.0 Ongoing Requirements

Applicants must continue to own and operate the charging equipment for a period of no less than five (5) years from the date of installation.



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For networked stations, the applicant must provide usage data to the DEP Bureau of Mobile Sources on a quarterly basis for the duration of the five (5) years. For non-networked stations, the applicant must provide NJDEP with quarterly data reporting on electricity use and number of regular users, to the best extent possible. The grant agreement will provide specific data to be submitted and the required data format to be used.

NJDEP may require applicants to participate in surveys and may request participation from applicants in other research efforts that support Program goals.

Grantees that fail to meet the requirements for years-in-service, up-time, and routine delivery of data may be declared ineligible for future charging stations grants from the DEP.

